



according to the present invention.

Fig. 6 is an elevational view of the nylon zipper of the present invention.

Fig. 7 is a schematic view showing the threaded rods of the present invention.

Fig. 8 is a front enlarged view showing the tips being formed on a threaded rod according to the present invention.

Fig. 9 is a cross section view along line I – I of Fig. 8.

Fig. 10 shows the cross section view along line II – II of Fig. 8.

Fig. 11 is a schematic view showing that the threaded rods clamp the nylon zipper according to the present invention.

Fig. 12 is a cross section view along line III – III of Fig. 2.

## DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

With reference to Fig. 3, the fastener structure of the nylon zipper of the present invention is illustrated. In the drawing, it is illustrated that each nylon gripper element 7 has a hollow center which is passed by a wire 1. Two nylon gripper elements 7 are engaged by the respective engaging portions 71 thereof. Each nylon gripper element 7 is hollowed at a center thereof. An outer side of each nylon gripper element 7 is formed with a cambered concave portion 72 and an inner side of the nylon gripper element 7 is formed with a convex portion 73 corresponding to the concave portion 72. The convex portion 73 will extrude the wire 1 toward ~~to~~ two sides. Thereby, the density of the central wire 1 is higher than the prior art wire. Thus, the wire 1 is well engaged with the nylon gripper elements 7.

With reference to Fig. 4, it is illustrated that the nylon zipper of the present invention is seamed to cross strips 9. Upper seaming wires 8a are embedded into the cambered concave portions 72 and lower seaming wires 8b are located below the cross strips 9. Thereby, the seaming wires 8 are exposed from the nylon gripper element. As a result, the friction force on

rod. It is illustrated that the tips 13 are formed as a single bank straight line and are on the recesses 121 of the threaded rod 12. Viewing from the cross section view 1-1 (see Fig. 9), it is found that a top of each tip 13 is a concave slot 131 which causes that the concave portion 72 of the nylon gripper element 7 has a cambered shape without ~~any~~ any sharp edge.

Fig. 11 is a schematic view showing the two threaded rods 11, 12 of the present invention clamping the nylon chains. In the drawing, the nylon wire 2 rises as the central wire 1 and is clamped by the two threaded rods 11, 12 so as to form the nylon gripper elements 7. The threaded rod 12 has tips 13 for forming the concave portions 72 and convex portions 73. This can be seen from the cross section view of Fig. 12. Besides, the tips are at the lower section A of the threaded rod 12, which will not affect the shaping of the concave portions 72 and convex portions 73 of the nylon gripper elements 7. It is preferable that the tips 13 are at the middle section 13 of the threaded rod 12.

The present invention is thus described, it will be obvious that the same may be varied in many ways. For example, the concave portions 72 can be formed at two sides of the nylon gripper elements 7, or each nylon gripper element 7 has only one concave portions 72 but no convex portion 73. Moreover, the shape of the concave portion 72 may be rectangular or the concave portion 72 is shallow. Such variations are not to be regarded as a departure from the spirit and scope of the present invention, and all such modifications as would be obvious to one skilled in the art are intended to be included within the scope of the following claims:

according to the present invention.

Fig. 6 is an elevational view of the nylon zipper of the present invention.

Fig. 7 is a schematic view showing the threaded rods of the present invention.

Fig. 8 is a front enlarged view showing the tips being formed on a threaded rod according to the present invention.

Fig. 9 is a cross section view along line I – I of Fig. 8.

Fig. 10 shows the cross section view along line II – II of Fig. 8.

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Fig. 12 is a cross section view along line III – III of Fig. 2.

## DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

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With reference to Fig. 3, the fastener structure of the nylon zipper of the present invention is illustrated. In the drawing, it is illustrated that each nylon gripper element 7 has a hollow center which is passed by a wire 1. Two nylon gripper elements 7 are engaged by the respective engaging portions 71 thereof. Each nylon gripper element 7 is hollowed at a center thereof. An outer side of each nylon gripper element 7 is formed with a cambered concave portion 72 and an inner side of the nylon gripper element 7 is formed with a convex portion 73 corresponding to the concave portion 72. The convex portion 73 will extrude the wire 1 toward two sides. Thereby, the density of the central wire 1 is higher than the prior art wire. Thus, the wire 1 is well engaged with the nylon gripper elements 7.

With reference to Fig. 4, it is illustrated that the nylon zipper of the present invention is seamed to cross strips 9. Upper seaming wires 8a are embedded into the cambered concave portions 72 and lower seaming wires 8b are located below the cross strips 9. Thereby, the seaming wires 8 are exposed from the nylon gripper element. As a result, the friction force on

rod. It is illustrated that the tips 13 are formed as a single bank straight line and are on the recesses 121 of the threaded rod 12. Viewing from the cross section view 1-1 (see Fig. 9), it is found that a top of each tip 13 is a concave slot 131 which causes that the concave portion 72 of the nylon gripper element 7 has a cambered shape without any sharp edge.

Fig. 11 is a schematic view showing the two threaded rods 11, 12 of the present invention clamping the nylon chains. In the drawing, the nylon wire 2 rises as the central wire 1 and is clamped by the two threaded rods 11, 12 so as to form the nylon gripper elements 7. The threaded rod 12 has tips 13 for forming the concave portions 72 and convex portions 73. This can be seen from the cross section view of Fig. 12. Besides, the tips are at the lower section A of the threaded rod 12, which will not affect the shaping of the concave portions 72 and convex portions 73 of the nylon gripper elements 7. It is preferable that the tips 13 are at the middle section 13 of the threaded rod 12.

The present invention is thus described, it will be obvious that the same may be varied in many ways. For example, the concave portions 72 can be formed at two sides of the nylon gripper elements 7, or each nylon gripper element 7 has only one concave portions 72 but no convex portion 73. Moreover, the shape of the concave portion 72 may be rectangular or the concave portion 72 is shallow. Such variations are not to be regarded as a departure from the spirit and scope of the present invention, and all such modifications as would be obvious to one skilled in the art are intended to be included within the scope of the following claims.